

## **Abstract**

The invention relates to silicone gaskets for measuring gas concentrations, procedures to produce these gaskets and  
5 procedures to produce microsensor which utilize these gaskets. The gaskets are characterized by a high permeability for the analyte, are electrically insulating and can be realized within microsensors. The microsensors based on the current invention are particularly appropriate  
10 for phytophysiological measurements and can be utilized, for instance, for high resolution measurements of gases in the single stomata of plant leaves.